



Attorney Docket No.: UTL 00077

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant(s): <b>FORRESTER, Tim</b>	Group Art Unit: <b>2684</b>
App No.: <b>10/080,948</b>	Examiner: <b>AMINZAY, S. Q.</b>
Filed: <b>February 21, 2002</b>	Conf. No. <b>1391</b>
Title: <b>SYSTEM AND METHOD FOR PROVIDING GPS-ENABLED WIRELESS COMMUNICATIONS</b>	

**RESUBMISSION OF PREVIOUSLY SUBMITTED RESPONSE TO OFFICE ACTION**  
**Under 37 CFR § 1.8(b)**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

Pursuant to **37 CFR 1.8(b)**, applicant respectfully resubmits the attached Response to Office Action, originally submitted on August 18, 2004 (hereinafter "Response") responsive to the Office Action dated June 9, 2004 in the above-reference

<b><u>CERTIFICATE OF MAILING</u></b>
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
Date of Deposit: <u>DECEMBER 7, 2004</u>
<u>LYNN MORIKUNAS</u> Name of Person Mailing Paper and/or Fee
<u>[Signature]</u> Signature

patent application. Accompanying the present resubmission of the Response is a Power of Attorney with a Statement Under 37 CFR 3.73(b) for the purpose of associating the above-referenced patent application with Customer Number: 32968 and Attorney Docket Number: UTL 00077.

**REQUEST UNDER 37 CFR § 1.8(b)**

37 CFR 1.8(b) provides that a correspondence which is timely filed by being in accordance with 37 CFR 1.8(a), but not received by the PTO, will be considered timely filed if the applicant satisfied the three requirements under section 37 CFR 1.8(b) (see MPEP 512).

**First requirement.**

Applicant hereby informs the PTO of the previously-submitted Response. Applicant became aware of non-receipt by the PTO of the Response when Applicant recognized that the return-receipt postcard submitted in conjunction with the Response had not been returned by the PTO. After this discovery, on about November 9, 2004, applicant called Examiner Aminzay to inquire as to the receipt of the Response. Applicant received a return call from the Examiner acknowledged non-receipt of the Response. On December 6, 2004, applicant called the Examiner again to inquire as to the receipt of the Response, and the Examiner acknowledged non-receipt of the Response. The present request is a formal notification to the PTO of non-receipt of the Response pursuant to 37 CFR 1.8(b).

**Second Requirement.**

Attached herein as Appendix A, is a copy of the previously submitted Response including a copy of the Certificate of Mailing signed by Lynn Morkunas, who deposited the Response with the U.S. Postal Service.

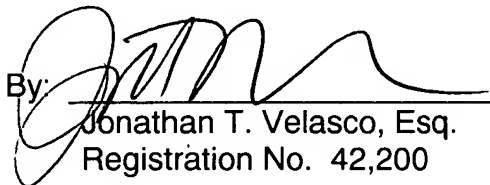
Third Requirement.

Attached herein as Appendix B, is statement of facts, signed by Lynn Morkunas, evidencing personal knowledge of submission of the Response on August 18, 2004 in compliance with 37 CFR 1.8(a).

Applicant respectfully submits that all of the requirements of 37 CFR 1.8(b) have been satisfied, and that, therefore, the Response originally submitted on August 18, 2004 be considered timely filed. Consideration and entry of the Response submitted on August 18, 2004 are respectfully requested.

Respectfully submitted,

Dated: Dec 7, 2004

By:   
Jonathan T. Velasco, Esq.  
Registration No. 42,200

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## **Appendix A**

***Response to Office Action***  
in the  
**U.S. PATENT & TRADEMARK OFFICE**

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**SYSTEM AND METHOD FOR  
PROVIDING GPS-ENABLED  
WIRELESS COMMUNICATIONS**

- Transmittal Form (1 pg.)
  - Amendment and Request for  
Reconsideration (21 pgs.)
  - Return Receipt Postcard
- 

Applicant(s): FORRESTER, Tim  
Filing Date: February 21, 2002  
App. No.: 10/080,948  
Assignee: Kyocera Wireless Corp.  
Dkt. No.: UTL 00077  
First Class Mailed: August 18, 2004

**COPY**



**KYOCERA WIRELESS CORP.**  
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P.O. Box 928289  
San Diego, CA 92192-8289

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PTO/SB/21 (02-04)

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/080,948	
	Filing Date	February 21, 2002	
	First Named Inventor	FORRESTER, Tim <i>72684</i>	
	Art Unit	2681	
	Examiner Name	AMINZAY, Shaima Q.	
Total Number of Pages in This Submission	22	Attorney Docket Number	UTL 00077

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Return Receipt Postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Lee Hsu, Esq., Reg. No. 39,716 KYOCERA WIRELESS CORP.
Signature	<i>Lee Hsu</i>
Date	August 18, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
MAIL STOP AMENDMENT			
Typed or printed name	Lynn Morkunas		
Signature	<i>Lynn Morkunas</i>	Date	August 18, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Applicant(s): **FORRESTER, Tim**

Group Art Unit: **2684**

Technology Center 2600

App. No.: **10/080,948**

Examiner: **AMINZAY, Shaima Q.**

Filed: **February 21, 2002**

Title: **SYSTEM AND METHOD FOR  
PROVIDING GPS-ENABLED  
WIRELESS COMMUNICATIONS**

**COPY**

**AMENDMENT AND  
REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

This Amendment and Request for Reconsideration is submitted in response to the Office Action dated June 6, 2004, in the above-referenced patent application.

A Listing of the Claims begins on page 2 of this paper.

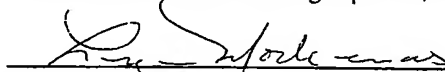
Remarks begin on page 6 of this paper.

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service via First Class Mail on **August 18, 2004** in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**Lynn Morkunas**

Printed Name of Person Mailing Paper and/or Fee

  
Signature

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the present application:

**Listing of Claims:**

1. (Currently amended) A handheld wireless communications device, comprising:  
a first antenna;  
a second antenna;  
a switching module coupled to the first antenna and to the second antenna; and  
a global positioning system (GPS) module coupled to the first antenna or the second antenna via the switching module,

wherein the switching module is adapted to couple the GPS module to the first antenna or the second antenna as a function of a GPS reception characteristic of the first antenna or the second antenna; and

wherein the GPS reception characteristic includes a GPS bit error rate (BER).

2. (Original ) The wireless communications device according to claim 1,  
wherein the switching module includes a diversity switch, and  
wherein the GPS module is coupled to the first antenna or the second antenna via the diversity switch.



3. (Original) The wireless communications device according to claim 2, further comprising:

a controller coupled to the GPS module and the switching module.

4. (Original) The wireless communications device according to claim 3, wherein the GPS reception characteristic is determined for a particular GPS frequency employed by the GPS module.

5. (Original) The wireless communications device according to claim 3, wherein the controller includes a mobile station modem (MSM).

6. (Cancelled).

7. (Original) The wireless communications device according to claim 1, wherein the first antenna is not disposed in a same direction as the second antenna.

8. (Original) The wireless communications device according to claim 1, wherein the first antenna is disposed approximately orthogonally with respect to the second antenna.

9. (Original) The wireless communications device according to claim 1, wherein the GPS module includes a matching circuit and a low noise amplifier.

**COPY**

10. (Original) The wireless communications device according to claim 9, wherein the matching circuit optimizes GPS signal characteristics over the first antenna or the second antenna.

11. (Original) The wireless communications device according to claim 9, wherein the matching circuit optimizes GPS signal strength over the first antenna or the second antenna.

12. (Currently amended) ~~The wireless communications device according to claim 1,~~  
~~further comprising:~~ A handheld wireless communications device, comprising:

a first antenna;

a second antenna;

a switching module coupled to the first antenna and to the second antenna;

a global positioning system (GPS) module coupled to the first antenna or the second antenna via the switching module,

a duplexer coupled to the switching module;

a receiver module coupled to the duplexer; and

a transmitter module coupled to the duplexer,

wherein the switching module is adapted to couple the GPS module to the first antenna or the second antenna as a function of a GPS reception characteristic of the first antenna or the second antenna and;

wherein the switching module is adapted to couple the duplexer to the first antenna or the second antenna as a function of a communications reception characteristic or a communications transmission characteristic of the first antenna or the second antenna.

**COPY**

13. (Original) The wireless communications device according to claim 12, wherein the switching module is adapted to couple, via the duplexer, the receiver module or the transmitter module to the first antenna or the second antenna as a function of the communications reception characteristic or the communications transmission characteristic of the first antenna or the second antenna.

14. (Original) The wireless communications device according to claim 12, wherein the switching module is structured to couple simultaneously the duplexer and the GPS module to different antennas.

15. (Currently amended) ~~The wireless communications device according to claim 1,~~  
~~further comprising:~~ A handheld wireless communications device, comprising:

a first antenna;

a second antenna;

a switching module coupled to the first antenna and to the second antenna;

a global positioning system (GPS) module coupled to the first antenna or the second antenna via the switching module,

a diplexer coupled to the switching module;

a first communications band module coupled to the diplexer; and

a second communications band module coupled to the diplexer,

wherein the switching module is adapted to couple the GPS module to the first antenna or the second antenna as a function of a GPS reception characteristic of the first antenna or the second antenna and;

wherein the switching module is adapted to couple the diplexer to the first antenna or the second antenna as a function of a communications reception characteristic or a communications transmission characteristic of the first antenna or the second antenna.

16. (Original) The wireless communications device according to claim 15, wherein the switching module is adapted to couple, via the diplexer, the first communications band module or the second communications band module to the first antenna or the second antenna as a function of the communications reception characteristic or the communications transmission characteristic of the first antenna or the second antenna.

17. (Original) The wireless communications device according to claim 16, wherein the switching module is structured to couple simultaneously the diplexer and the GPS module to different antennas.

18. (Original) The wireless communications device according to claim 15,  
wherein the first communications band module includes cellular band communications circuitry, and

wherein the second communications band module includes PCS band communications circuitry.

19. (Currently amended) A system for providing wireless communications, comprising:

a first antenna;

a second antenna;

a GPS module;

means for selecting one of the first antenna or the second antenna for use in receiving GPS information as a function of GPS receiving characteristics of the first antenna or the second antenna; ~~and~~

means for coupling the received GPS information to a GPS module via one of the first antenna or the second antenna as selected by the selecting means; and

means for coupling a communications transmitter module or a communications receiver module to the first antenna or the second antenna as selected by means for selecting the first antenna or the second antenna as a function of communications transmission characteristics or communications reception characteristics of the first antenna or the second antenna.

20. (Cancelled).

21. (Currently amended) The system according to claim 19 20, wherein the GPS module and the communications transmitter module or the communications receiver module simultaneously use different antennas.

22. (Original) The system according to claim 19, further comprising:

means for communicating over a first communications band;

means for communicating over a second communications band; and

means for coupling communications information over the first communications band or the second communications band via the first antenna or the second antenna as selected by means for selecting the first antenna or the second antenna as a function of communications reception characteristics or communications transmission characteristics of the first antenna or the second antenna.

23. (Original) The system according to claim 22, wherein the GPS module and the first communications band means or the second communications band means simultaneously use different antennas.

24. (Currently amended) A method for providing a global positioning system (GPS) enabled wireless communications device, comprising the steps of:

(a) selecting a first antenna or a second antenna for use in receiving GPS information as a function of GPS receiving characteristics of the first antenna or the second antenna; ~~and~~

(b) coupling the GPS information to a GPS signal processor via one of the first antenna or the second antenna as selected in step (a); and

(c) simultaneously receiving the GPS information and two-way wireless communications information over respective antennas via a diversity switch.

25. (Cancelled).

26. (Currently amended) A method for providing global positioning system (GPS) enabled wireless communications, comprising the steps of:

- (a) coupling a GPS module to a first antenna via a diversity switch;
- (b) evaluating a first GPS bit error rate (BER) of a first GPS signal received on  
~~reception characteristic of the first antenna;~~
- (c) coupling the GPS module to a second antenna via the diversity switch;
- (d) evaluating a second ~~the~~ GPS BER of a second GPS signal received on ~~reception~~  
~~characteristic of the second antenna; and~~
- (e) coupling the GPS module to the second antenna instead of the first antenna via the diversity switch.

27. (Original) The method according to claim 26, wherein step (e) includes the step of coupling the GPS module to the second antenna instead of the first antenna via the diversity switch if the GPS reception characteristic of the second antenna is better than the GPS reception characteristic of the first antenna.

28. (Original) The method according to claim 26, wherein step (e) includes the step of coupling the GPS module to the second antenna instead of the first antenna via the diversity switch if the GPS reception characteristic of the first antenna becomes poor.

29. (Original) The method according to claim 26, wherein step (b) includes the step of evaluating when the GPS reception characteristic of the first antenna reaches a particular threshold value.

30. (Original) The method according to claim 26, wherein step (c) includes the step of temporarily coupling the GPS module to the second antenna via the diversity switch to sample the GPS signal for use in step (d).

31. (Original) The method according to claim 26, further comprising the steps of:

(f) evaluating a communications transmission characteristic or a communications reception characteristic of the first antenna or the second antenna; and

(g) coupling a duplexer to one of the first antenna or the second antenna via the diversity switch as a function of the evaluated communications transmission characteristic or the evaluated communications reception characteristic of the first antenna or the second antenna.

32. (Original) The method according to claim 31, further comprising the step of:

(i) simultaneously coupling the duplexer and the GPS module to different antennas via the diversity switch.

33. (Original) The method according to claim 26, further comprising the steps of:

(f) evaluating a communications transmission characteristic or a communications reception characteristic of the first antenna or the second antenna; and

(g) coupling a diplexer to one of the first antenna or the second antenna via the diversity switch as a function of the evaluated communications transmission characteristic or the evaluated communications reception characteristic of the first antenna or the second antenna.



34. (Currently amended) The method according to claim 33, further comprising the step of:

(i) simultaneously coupling the ~~duplexer~~ diplexer and the GPS module to different antennas via the diversity switch.

35. (Original) The method according to claim 33, further comprising the step of:

(i) coupling cellular band communications circuitry or personal communications services (PCS) band communications circuitry to the first antenna or the second antenna via the diplexer and the diversity switch.

**REMARKS**

The present amendment and request for continued examination is in response to the Office Action dated June 9, 2004, where the Examiner has rejected claims 1-35. Claims 6, 20 and 25 have been cancelled without prejudice. Claims 1, 12, 15, 19, 21, 24, 26 and 34 are currently amended. Accordingly, claims 1-5, 7-19, 21-24, and 26-35 are pending in the present application. Reconsideration and allowance of pending claims 1-5, 7-19, 21-24, and 26-35 in view of the amendments and the following remarks are respectfully requested.

**A. Typographical Error Correction of Claim 34**

Applicant has noticed a typographical error in claim 34. The “duplexer” has been replaced with –diplexer--. As support for this change, Applicant calls the Examiners attention to independent claim 26 and intervening 33, from which claim 34 depends. There is no antecedent basis support for “the duplexer” in claims 26 and 33. However, there is antecedent basis support for “the diplexer” in claim 33. Thus, “duplexer” has been changed to –diplexer--.

**B. Rejection of Claims 1-5, 7-8, 19-21, 23-24 and 26-30 Under 35 USC §102**

The Examiner has rejected claims 1-5, 7-8, 19-21, 23-24 and 26-30 under 35 USC §102(b) as being anticipated by Howell (U.S. Patent No. 6,542,119 B2) (hereinafter, Howell). Applicant has amended independent claim 1 to include the patentable subject matter of claim 6. Therefore, Applicant respectfully asserts that claim 1 and claims 2-5, 7-8 which depend from claim 1 are in condition for allowance. Applicant has amended claim 19 to include the patentable subject matter of claim 20. Therefore, Applicant respectfully asserts that claim 19 and claim 21, which depends from claim 19 are in condition for allowance. Applicant has cancelled claim 20

without prejudice. Applicant reserves the right to prosecute the subject matter of claim 20 in a related application. Applicant has amended claim 22, which includes patentable subject matter, to include the subject matter of independent claim 19. Claim 23, which depends from claim 22, is therefore also in condition for allowance. Applicant has amended claim 24 to include the patentable subject matter of claim 25. Therefore, applicant respectfully asserts that claim 24 is in condition for allowance. Applicant has amended claim 26 to include the patentable subject matter of evaluating a GPS bit error rate. Therefore, Applicant respectfully asserts that claim 26 and claims 27-30, which depend from claim 26, are in condition for allowance.

In section 4 of the Office Action, claims 1 and 2 are rejected as being anticipated by Howell. Applicant respectfully disagrees. However, Applicant has amended claim 1 to include the patentable subject matter of claim 6. Applicant reserves the right to pursue the subject matter of claims 1 and 2 in this or a related application.

In section 5 of the Office Action, claims 19, 20, 21, 23 and 25 are rejected as being anticipated by Howell. Applicant traverses this rejection as to claims 20 and 21 as follows. Claim 20 claims:

“means for coupling a communications transmitter module or a communications receiver module to the first antenna or the second antenna as selected by means for selecting the first antenna or the second antenna as a function of communications transmissions characteristics or communications reception characteristics of the first antenna or the second antenna.”

Howell does not teach or describe the claimed means for coupling a communications transmitter module or a communications receiver module to the first antenna or the second antenna. Specifically, Howell discloses:

“Telemetric devices normally include a GPS receiver together with a cell phone that transmits the location information to a central tracking station. A telemetric device can be used as a handheld device such as a cell phone or may be incorporated as part of a personal data assistant (PDA). Each of these devices may be adjusted or used in various orientations. The telemetric device 100 may therefore include various GPS antennas such as GPS antenna 102, 104, 106, 108, 110, 112 that are disposed on various surfaces of the telemetric device 100.”

Howell, col. 2, lines 54-63. Howell does, in fact, disclose a GPS system including GPS antennas on a cell phone. However, Howell does not teach or suggest using the GPS antennas for reception of communications signals other than the GPS signals or for transmission of communications signals. Presumably the GPS antennas in Howell are dedicated to GPS reception. Presumably Howell would have a separate communications antenna for two-way communications in the cell phone. Accordingly, Howell does not teach or suggest at least the claimed means for coupling a communications transmitter module or a communications receiver module to the first antenna or the second antenna, claimed in original claim 20, now incorporated in amended claim 19. Applicant respectfully asserts that claim 19, and claim 21 which depends from claim 19, are in condition for allowance.

Applicant traverses the rejection as to claims 23 and 25 as follows. Claim 23 depends from claim 22. Claim 22 is in condition for allowance at least for similar reasons to claim 20, discussed above. Claim 22 claims:

“means for communicating over a first communications band;

means for communicating over a second communications band; and

means for coupling communications information over the first communications band or the second communications band via the first antenna or the second antenna as selected by means for selecting the first antenna or the second antenna as a function of communications reception characteristics or communications transmission characteristics of the first antenna or the second antenna.”

As described above with reference to claim 20, Howell does not teach or suggest coupling communications bands to the GPS antenna. Presumably, Howell would include a separate antenna for the communications band. Claim 22 is allowable for the following additional reason. Claim 22 claims two separate communications bands, in addition to the GPS signal reception. Howell does not disclose such dual band communications. Accordingly, Applicant respectfully asserts that claim 22 and claim 23, which depends from claim 22, are in condition for allowance. Applicant notes that claim 22 is rejected as unpatentable under 35 U.S.C. 103(a) over Howell in view of U.S. Patent number 6,052,605 (hereinafter Meredith), but claim 23, which depends from claim 22 is rejected as anticipated by Howell under 35 U.S.C. 102(b). Since claim 23 depends from claim 22, claim 23 includes all of the limitations of claim 22. However, Applicant respectfully asserts that both claims 22 and 23 are patentable over Howell alone under 102(b) and over Howell in view of Meredith under 103(a). Claim 22’s patentability over Howell in view of Meredith under 103(a) will be discussed below.

Applicant traverses the rejection as to claim 25 as follows. The subject matter of claim 25 has been incorporated into currently amended claim 24. Currently amended claim 24 claims: “simultaneously receiving the GPS information and two-way wireless communications information over respective antennas via a diversity switch.” Howell does not teach or suggest simultaneously receiving the GPS information and two-way wireless communications

information over respective antennas via a diversity switch. As described above with reference to claim 2-, Howell discloses a GPS enabled cell phone. But Howell does not indicate whether the GPS reception and two-way communications could be simultaneous. Accordingly, Applicant respectfully asserts that currently amended claim 24, incorporating the subject matter of original claim 25, is in condition for allowance.

In section 6 of the Office Action, claim 24 is rejected as being anticipated by Howell. Applicant respectfully disagrees. However, to expedite prosecution, Applicant has amended claim 24 to include the patentable subject matter of claim 25, as described above with reference to claim 25. Applicant reserves the right to prosecute the subject matter of claim 24 in this or a related application.

In section 7 of the Office Action, claim 26 is rejected as anticipated by Howell. Applicant respectfully disagrees. However, to expedite prosecution, Applicant has amended claim 26 to include the patentable subject matter of evaluating a GPS bit error rate. Applicant reserves the right to prosecute the subject matter of original claim 26 in this or a related application. Applicant respectfully asserts that claim 26 is now in condition for allowance, for at least the reasons discussed below, with reference to claim 6.

In sections 8-11 of the Office Action, claims 27-30, respectively, are rejected as anticipated by Howell. Applicant traverses this rejection as follows. Claims 27-30 depend from claim 26, which is allowable for at least the reasons discussed below with respect to claim 6. Accordingly, claims 27-30 are now in condition for allowance.

In sections 12 and 13 of the Office Action, claims 3, 4, 5, 7 and 8 are rejected as anticipated by Howell. Applicant traverses this rejection as follows. Claims 3, 4, 5, 7 and 8 depend from currently amended claim 1, which incorporates the subject matter of claim 6, which

is allowable for at least the reasons discussed below with respect to claim 6. Accordingly, claims 3, 4, 5, 7 and 8 are now in condition for allowance.

**C. Rejection of Claims 6, 9, 10 and 11 Under 35 USC §103**

The Examiner has further rejected claims 6, 9, 10 and 11 under 35 USC §103(a) as being unpatentable over Howell in view of Dooley et al. (U.S. Patent number 6,525,689) (hereinafter Dooley). Applicant traverses this rejection as follows.

For the reasons that follow, applicant respectfully submits that claims 6, 9, 10 and 11 are patentably distinguishable over the cited references, considered singly or in combination.

An invention is unpatentable if the differences between it and the prior art would have been obvious at the time of the invention. As stated in MPEP § 2143, there are three requirements to establish a *prima facie* case of obviousness.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The invention of claim 6 is patentable at least because the references do not teach or suggest all the claim limitations. Independent claim 1 has been amended to specify the reception characteristic includes a bit error rate. The Office Action states that “Dooley discloses the GPS reception characteristic includes GPS signal strength, GPS signal clarity (see for example, column 5, lines 60-62 and column 6, lines 26-28).” The Office Action does not make any assertion that bit error rate is taught or suggested by Dooley. Accordingly, claim 1, which incorporates the limitation that the GPS reception characteristic includes a GPS bit error rate, is in condition for allowance, as are all claims depending from claim 1.

Claims 9, 10 and 11 depend from claim 1 and therefore enjoy all of the limitations over the cited references as claim 1. Accordingly, Applicant respectfully asserts that claims 9, 10 and 11 are now in condition for allowance.

**D. Rejection of Claims 12-18, 22 and 31-35 Under 35 USC §103**

Claims 12-18, 22 and 31-35 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Howell in view of Meredith (U.S. Patent number 6,052,605) (hereinafter Meredith). Applicant traverses this rejection as follows.

An invention is unpatentable if the differences between it and the prior art would have been obvious at the time of the invention. As stated in MPEP § 2143, there are three requirements to establish a *prima facie* case of obviousness.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

In section 16 of the Office Action, claims 12, 13, 14, 31, 32, 33 and 34 are rejected as being unpatentable over Howell in view of Meredith. Claim 12 is patentable over the references for similar reasons to the patentability of claim 20, discussed above. Claim 12 claims:

“a duplexer coupled to the switching module;  
a receiver module coupled to the duplexer; and  
a transmitter module coupled to the duplexer,  
wherein the switching module is adapted to couple the duplexer to the first  
antenna or the second antenna as a function of a communications reception



characteristic or a communications transmission characteristic of the first antenna or the second antenna.”

As previously stated, Howell does not teach or suggest coupling two way communications signals to the same antenna as the GPS antennas, much less the specifics of using a duplexer to couple the two-way communications to the GPS antenna. Similarly, Meredith discloses switching between antennas, but does not teach or suggest the claimed coupling a duplexer to the GPS antenna. Even if it is obvious from reviewing Howell and Meredith to combine a device with GPS reception with a device having multiple antennas for two way communications, it is not obvious to use the same antennas for the GPS reception and the two way communications. Accordingly, claim 12 is patentable at least because the references do not teach or suggest, singly or in combination, the all of the claim limitations. Accordingly, Applicant respectfully asserts that claim 12, and claims 13 and 14, which depend from claim 12, are in condition for allowance.

Regarding claims 31-34, Applicant respectfully asserts that claim 31 is patentable for at least the reasons that claim 12 is patentable as described above. Claim 31 claims “coupling a duplexer to one of the first antenna and the second antenna”. Since Howell and Meredith do not teach or suggest coupling a duplexer to a GPS antenna, claim 31, and claim 32, which depends from claim 31, are in condition for allowance. Claims 31 and 32 are allowable for the following additional reasons. Claims 31 and 32 depend from claim 26. Claim 26 includes the additional patentable material that the reception characteristic includes a GPS bit error rate.

Applicant respectfully asserts that claim 33 is patentable for at least the reasons that claim 22 is patentable as described above. Claim 33 claims “coupling a diplexer to one of the first antenna and the second antenna”. Claim 33 claims a method including coupling two separate

communications bands to a GPS antenna. As described above with reference to claim 22, Howell does not disclose a dual band communications. Since Howell and Meredith do not teach or suggest coupling a diplexer (for two communications bands) to a GPS antenna, claim 33, and claim 34, which depends from claim 33, are in condition for allowance. Claims 33 and 34 are allowable for the following additional reasons. Claims 33 and 34 depend from claim 26. Claim 26 includes the additional patentable material that the reception characteristic includes a GPS bit error rate.

In section 17 of the Office Action, claims 15, 16, 17, 18, 22 and 35 are rejected as unpatentable over Howell in view of Meredith. Applicant traverses these rejections as follows.

Claim 15 claims:

“a diplexer coupled to the switching module;  
a first communications band module coupled to the diplexer; and a second  
communications band module coupled to the diplexer,  
wherein the switching module is adapted to couple the diplexer to the first antenna  
or the second antenna as a function of a communications reception characteristic  
or a communications transmission characteristic of the first antenna or the second  
antenna.”

As described above with reference to claims 22 and 33, neither Howell nor Meredith, either singly or in combinations, teach or suggest coupling a diplexer to the GPS antenna. Since Howell and Meredith do not teach or suggest coupling a diplexer (for two communications bands) to a GPS antenna, claim 15, and claim 16, 17 and 18, which depend from claim 15, are in condition for allowance.

Applicant traverses the rejection with respect to claim 22 as follows. As described above, with reference to claims 22 and 23 in section A of this paper, and with respect to claim 15 above, neither Howell nor Meredith teaches or suggests means for coupling communications bands to a GPS antenna. Accordingly, Applicant respectfully asserts that claim 22 is in condition for allowance.

Applicant traverses the rejection with respect to claim 35 as follows. Claim 35 includes all of the steps of claim 33, from which it depends, Accordingly, claim 35 is patentably distinct from the cited references for at least the reasons stated above with respect to claim 33.

E. Conclusion

For all the foregoing reasons, an early allowance of claims 1, 4-12, 20, 25 and 32-35 pending in the present application is respectfully requested.

Respectfully Submitted;

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## **Appendix B**